

REMARKS/ARGUMENTS

Reconsideration of the application is respectfully requested for the following reasons:

The present remarks are in response to the Office Action mailed October 6, 2005, in which Claims 1-20 were pending, Claims 12-20 were allowable, Claim 1-2, 4-6, 8, and 10-11 were rejected, and Claims 3 and 7 were objected.

Claims 1, 3, 9, and 12 have been amended, and Claims 2 and 7 have been cancelled. Claims 21 through 27 were new added.

Applicant respectfully requests reconsideration in light of the above amendments and the following remarks.

CLAIMS OBJECTION

With respect to Page 2 of the Office Action, Claims 1 and 12 are objected to because of informalities.

The Examiner alleges that Claim 1 recites “performing a carbon-containing plasma treatment for said insulator layer” and Claim 12 recites “performing a carbon-containing plasma treatment for said oxide liner”. The term “for” is unnecessary confusing and clumsy.

Applicant has reviewed originally filed Claims 1 and 12 and amended “for” to -- on --. Thus, Applicant believes that the objection of Claims 1 and 12 is moot.

CLAIM REJECTION-35 U.S.C. SECTION 102 (e)

With respect to Page 2 through 3 of the Office Action, Claims 1-2, 5,8, and 10 stand rejected under 35 U.S.C. 102 (e) as being anticipated by Kakamu et al (U.S. Patent No. 6,794,693).

Claim 2 is deleted since the limitation of Claim 2 “forming a spacer on a side-wall of said gate structure” and “implanting said dopant to form a source/drain region next to said junction region” is added into Claim 1. Thus, the rejection of Claim 2 is moot.

This rejection is respectfully traversed on the basis that Kakamu et al ‘693 does not disclose “implanting a dopant into said semiconductor substrate to form a ‘junction region’”, “performing a carbon-containing plasma treatment on said insulator layer, and said carbon-containing plasma is performed to penetrate the carbon atoms into said junction region”, “implanting said dopant to form a source/drain region ‘next to said junction region’” as recited in amended Claim 1.

Kakamu et al ‘693 discloses that the “source region and a drain region formed by diffusing a p-type dopant ion into the semiconductor substrate” (col. 4, lines 18-20).

The present claimed invention recites that the “implanting a dopant into said semiconductor substrate to form ‘a junction region’”, which is not “source/drain region” as Kakamu et al ‘693 discloses. In addition, Kakamu et al ‘693 also did not disclose “implanting said dopant to form a source/region ‘next to said junction region’”. Kakamu et al ‘693 only disclosed “one implanting process” to form the “source/drain region”, and did not disclose another implanting process to form ‘a junction region’. Besides, Kakamu et al ‘693 also did not disclose the “source/drain region” that is formed “next to a junction region”.

Furthermore, Kakamu et al '693 did not disclose the recitation that "performing a carbon-containing plasma treatment on said insulator layer, and said carbon-containing plasma is performed to penetrate the carbon atoms into said junction region" as recited in amended Claim 1. Kakamu et al '693 did not disclose the "junction region" that formed in the substrate. Therefore, there is no "implanting process" to perform the "carbon atoms into said junction region". Thus, Applicant believed that the disclosure of Kakamu et al '693 cannot anticipate the present invention.

CLAIM REJECTION-35 U.S.C. SECTION 103 (a)

Claims 4 and 6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kakamu et al '693.

This rejection is respectfully traversed on the basis that Kakamu et al '693 does not disclose "implanting a dopant into said semiconductor substrate to form a junction region". According to the figures of Kakamu et al '693, there is no "junction region". Thus, the "thickness of the junction region" also cannot be taught by Kakamu et al '693. In addition, Kakamu et al '693 did not disclose that the "performing a carbon-containing plasma treatment [[for]] on said insulator layer". Thus, the power of carbon-containing plasma cannot be taught by Kakamu et al '693. Thus, Kakamu et al '693 cannot achieve the present invention.

Claim 11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kakamu et al '693 in view of Horstmann et al (U.S. Patent No. 6,798,028).

The Examiner is of the opinion that Kakamu et al '693 did not disclose what type of heating is used, but cited Horstmann et al '028 as disclosing 'a process of forming a transistor'. The disclosure of Kakamu et al '693 in view of Horstmann et al '028 did not disclose "implanting

said dopant to form a source/drain region next to said junction region”, Thus, Horstmann et al ‘028 merely disclosed one of the steps of the present invention, but the combination of Kakamu et al ‘693 in view of Horstmann et al ‘028 did not disclose the **forming steps as discussed above**. Thus, Applicant believed that the combination of the disclosure of Kakamu et al ‘693 in view of Horstmann et al ‘028 cannot achieve the present invention.

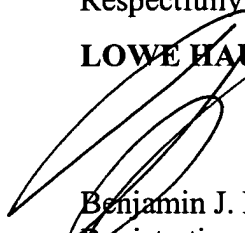
Conclusion

In light of the above amendments and remarks, Applicant respectfully submits that all pending Claims 1, 3-6, 8-11, 12-20, and 21-27 as currently presented are in condition for allowance. Accordingly, reconsideration is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

LOWE HAUPTMAN & BERNER, LLP



Benjamin J. Hauptman
Registration No. 29,310

Customer Number: 22429
1700 Diagonal Road, Suite 300
Alexandria, Virginia 22314
(703) 684-1111
(703) 518-5499 Facsimile
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BJH/jk